

## REMARKS/ARGUMENTS

New claim 24 has been added. Claims 1, 3, 18, and 23 are cancelled by this amendment and Claims 7-9 were previously cancelled. Claims 2, 5, 6, 10, 17, and 19 are amended herein. Thus, Claims 2, 4-6, 10-17, 19-22 and 24 remain pending in this application. In view of the amendments and remarks made herein, Applicants respectfully request reconsideration of this application.

### Rejections Under 35 U.S.C. § 112:

**Claim 23** stands rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter not described in the Specification. This ground for rejection has been made moot by the Applicants cancellation of Claim 23.

### Rejections Under 35 U.S.C. § 103:

**Claims 1-4, 10, 11, 16-18, 21, and 22** stand rejected under 35 U.S.C. § 103 as being unpatentable over Admitted Prior Art (“APA”) in view of AIX Version 4.3 Communications Programming Concepts (October 1997)(“AIX”).

Regarding **Claims 1, 3, and 18**, these claims are cancelled thereby making moot these rejections.

Regarding Amended **Claim 2**, in the pending Office Action (Paper No. 12), the Examiner has asserted that *AIX* teaches in stream synchronization, a multi-threaded environment, where several threads may access the same stream, same module, or the same queue at the same time (Office Action, Pages 2-3, discussion of claim 1). The Office Action specifically points out that concurrent propagation of messages to, and from, synchronization queues is not taught by the APA. Importantly, the other cited reference (AIX) also does not teach that “first and second threads concurrently propagate respective portions of the first and second messages to or from the first synchronization queue”. Thus, the combination of cited references entirely misses the point of concurrent message propagation through a synchronization queue (in this implementation, a back-up queue) by two or more threads. Absent a teaching of all such limitations the cited combination of references fail to establish a *prima facie* case of obviousness as to Claim 2.

The Office Action’s assertion that AIX’s teaching, when combined with that of the APA, insures data consistency is an interesting (if unsupported) conclusion that still does not teach the

limitation of multi-threaded concurrent propagation of message traffic through a synchronization queues as required by Claim 2.

Moreover, the Office Action has failed to show any motivation to combine the Applicants teachings (APA) with the cited art. Using the guidance set for the in the MPEP (§2142), the initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). If, as in this case, the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). In the case here, it is fairly clear that the Applicants Specification (APA) has made no suggestion to combine with AIX. Nor is their any indication in AIX why it should be combined with the Applicants teachings. The Office Action has not satisfactorily explained why the suggested combination is proper.

The Office Action, as it sole rationale for combining the references, states "it would have been obvious to apply the teaching of AIX to APA ...". However, this line of reasoning is specifically forbidden by the MPEP (§2143) and supporting case law. "The level of skill in the art cannot be relied upon to provide the suggestion to combine references." *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999)(emphasis added). "A statement that modifications of the prior art to meet the claimed invention would have been " 'well within the ordinary skill of the art at the time the claimed invention was made' " because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." *Ex parte Levensgood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)(emphasis original). There is no suggestion in any of the cited references indicating that they should be combined. Thus, even had the cited references been able to support the rejection of Claim 2, there is no motivation to combine the references to achieve the claimed invention.

Therefore, in view of the foregoing, it is respectfully submitted that the cited references fail to establish a *prima facie* case of obviousness as to Claim 2. Consequently, the Applicants

respectfully submit that the rejection of Claim 2 be withdrawn. Additionally, a similar logic can be applied to dependent **Claims 4, 10, 11, 21, and 22**. Therefore, the Applicants respectfully submit that the rejection of dependent Claims 4, 10, 11, 21, and 22 be withdrawn.

As to **Claim 16** which is rejected on grounds identical to that of Claim 10 (which is discussed herein above), the Applicants assert for at least the reasons set forth above with respect to Claims 2 (and its dependent Claim 10) that the cited references fail to establish a *prima facie* case of obviousness as to Claim 16 and therefore Applicant's respectfully submit that the rejection of Claim 16 be withdrawn.

As to **Claim 17**, which has been amended to include the limitation of "wherein the first and second threads concurrently propagate respective portions of the first and second messages to or from the first synchronization queue", the Applicants assert for at least the reasons set forth above with respect to Claim 2 that the cited references fail to establish a *prima facie* case of obviousness as to Claim 17. Therefore, Applicants respectfully submit that the rejection of Claim 17 be withdrawn.

**Further Rejections Under 35 U.S.C. § 103:**

**Claims 5, 6, 14, 15, 19, and 20** stand rejected under 35 U.S.C. § 103 as being unpatentable over APA, in view of AIX, and further in view of the U.S. Patent to Obermarck, et al. (USPN 4,847,754)("Obermarck").

**Claims 5 and 6** (which depend on amended Claim 2) now include the limitation of "first and second threads concurrently propagate respective portions of the first and second messages to or from the first synchronization queue." Consequently, for at least the reasons set forth herein above with respect to Claim 2 (upon which Claims 5 and 6 depend) the combination of APA and AIX fail to teach all the limitations of the claims. Moreover, the Obermarck reference does nothing to remedy the lack of concurrent propagation of messages within a back-up queue (synchronization queue).

Moreover, the brief statement that Obermarck teaches "concurrent propagation of data between software modules" specifically does not teach back-up queues (synchronization queues) nor does it teach concurrent propagation of a plurality of different messages through a synchronization buffer, i.e., it does not establish a *prima facie* case of obviousness as to Claims 5 and 6.

**Claim 14** depends from Claim 11. Claim 11 includes the limitation of a "plurality of processors to **concurrently propagate messages to or from the auxiliary queue** of the second

software module”. Obermarck is cited for the proposition that it teaches concurrent propagation of data between software modules. That is not the claimed limitation in Claim 14. The APA and AIX and Obermarck references taken individually, or in any reasonable combination, do not teach the limitation of “plurality of processors to concurrently propagate messages to or from the auxiliary queue of the second software module”. Again, because the cited art fails to address the issue of concurrent propagation of a plurality of message through (to or from) a synchronization queue, the cited references have failed to establish a *prima facie* case of obviousness as to Claim 14.

**Claim 15** also depends from Claim 11 which includes the limitation of a “plurality of processors to **concurrently propagate messages to or from the auxiliary queue** of the second software module”. As with Claim 14, Obermarck is cited for the proposition that it teaches concurrent propagation of data between software modules. Again, this is not the claimed limitation in Claim 15. Therefore, for at least the reasons set forth with respect to Claim 14, the APA and AIX and Obermarck references taken individually, or in any reasonable combination, do not establish a *prima facie* case of obviousness as to Claim 15.

The rejection of **Claim 19** is based on the earlier rejection of Claim 5. The rejection of **Claim 20** is based on the earlier rejection of Claim 10. For at least the reasons discussed previously with respect to Claims 5 and 10, the Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness as to Claims 19 and 20.

**Claims 12 and 13** stand rejected under 35 U.S.C. § 103 as being unpatentable over APA, in view of AIX, and further in view of the U.S. Patent to Heller, et al. (USPN 5,404,562)(“Heller”). The Applicants presume that the Examiner meant to reject these claims as being unpatentable over APA, in view of AIX, in view of Obermarck, and further in view of the U.S. Patent to Heller, et al. (USPN 5,404,562)(“Heller”). As discussed herein above with respect to, for example, Claims 11 or 14 the cited references fail to teach or suggest the limitation of “concurrently propagat[ing] messages to or from the auxiliary queue of the second software module”. For at least the reasons discussed hereinabove, the combination of APA, AIX, Obermarck, fail to teach or suggest concurrent message propagation to or from an auxiliary queue in a software module. Nothing in Heller remedies this defect in the cited combination of references. The cited portions of Heller (18:48-49) do not address concurrent data propagation in synchronization queues. Since a nearly identical ground for rejection is raised for Claim 13 a similar argument can be applied. Accordingly, for at least the foregoing reasons the cited references have failed to establish a *prima facie* case of obviousness as to Claims 12 and 13.

The rejection of **Claim 23** is made moot by the cancellation of this claim (discussed above).

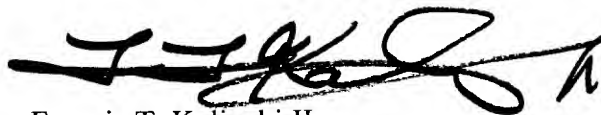
Accordingly, it is respectfully submitted that neither the Admitted Prior Art, nor *ALX*, nor Obermarck, nor Heller, either singly or in any reasonably combination teach or suggest the limitation of: threads concurrently propagating a plurality of messages to or from a first synchronization queue. Accordingly, it is respectfully submitted that all pending claims are allowable over the cited references, taken alone, or in any proper combination. Moreover, the dependent claims recite additional features that render them patentable for additional reasons that it has not yet been deemed necessary to discuss. Thus, it is respectfully requested that the Examiner withdraw all rejections under 35 U.S.C. §103(a) as to Claims 2, 4, 5, 6, 10-17, 19-22 and 24.

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. The Examiner is cordially invited to contact the undersigned at the telephone number set out below to resolve or clarify any issues regarding this application.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read 'Francis T. Kalinski II', with a stylized flourish at the end.

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